Newborn Screening Quality Assurance Program

PROFICIENCY TESTING PROGRAM FOR ANTI-HIV-1 IN DRIED BLOOD SPOTS

Quarterly Report | Quarter 2 | May 2005

For the second quarter of 2005, we received data reports for 37 HIV-1 proficiency testing (PT) panels from 33 participants. Participants conducting screening analysis reported no misclassifications, and those conducting confirmatory analysis reported no misclassifications.

The PT panel for Quarter 2 consisted of five individual-matrix dried-blood spot (DBS) specimens. In Part 1 of the report, Table 1 shows the number of laboratories using each screening method/kit; Table 2 shows the expected results and the number of laboratories reporting reactive and non-reactive results; and Table 3 summarizes EIA absorbance ranges and means by specimen number and method of analysis (representative data are shown for three kits). Table 3 also shows the results obtained by CDC.

In Part 2 of the report, Table 4 shows the number of laboratories using each confirmatory method/kit; Table 5 shows the expected results, number of laboratories reporting reactive, non-reactive, or indeterminate results, and number of laboratories not reporting confirmatory results; and Table 6 shows the band classifications by method of PT specimens that tested positive for HIV-1 initially and after repeat EIA analysis (representative data are shown for two methods). Table 6 also shows the results obtained by CDC.❖

The Quality Assurance Program will ship next quarter's HIV-1 DBS proficiency testing specimens on July 18, 2005, and the next major allotment of HIV-1 DBS quality control specimens on July 18, 2005.❖

The 2005 National HIV Prevention Conference will be held June 12-15, 2005, at the Hyatt Regency Atlanta, in Atlanta, Georgia. This conference of governmental and non-governmental organizations offers opportunities to share prevention approaches and research findings and to strengthen collaborations between program practicioners and researchers. For more information, visit www.2005hivprevconf.org.❖

The complete document, *Cases of HIV Infection and AIDS in the United States, 2003 (HIV/AIDS Surveillance Report, Vol. 15),* is available in PDF format at http://www.cdc.gov/hiv/stats/2003SurveillanceReport.htm.❖

The HIV Rapid Testing in Non-Clinical Settings Demonstration Project meets strategy 2 of the Advancing HIV Prevention Initiative: implementing new models for diagnosing HIV infections outside medical settings. For an overview and information visit http://www.cdc.gov/hiv/partners/AHP/AHPDemoRapidtestNonClin.htm❖

SpotLight

Young people in the United States are at persistent risk for HIV infection. This risk is especially notable for youth of minority races and ethnicities. On May 10, 2005, CDC published a new Fact Sheet, *HIV/AIDS among Youth.* It can be viewed at http://www.cdc.gov/hiv/pubs/facts/youth.htm.❖

Quarterly publication for colleagues and participants of the Performance Evaluation Program for Anti-HIV-1 in Dried Blood Spots

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PART 1. SCREENING

Table 1.
Screening Methods

Kit Source	Total Participants
Genetic Systems *r*LAV EIA (Bio-Rad)	6
bioMerieux Vironostika HIV-1 Microelisa System	13
bioMerieux Vironostika Uni-Form II *plus* O	6
Fujirebio Serodia-HIV	3
Abbott Murex HIV 1+2 Gacelisa	1
Murex HIV 1.2.0	1
Tecnosuma (Cuba) UMELISA HIV 1+2	1
Other	5
In House	1
Total	37

Table 2.
Number of Labs Reporting Screening Results

Specimen Number	Expected Results	Reactive	Non-reactive	No Interpretation
2541	Non-reactive	0	37	0
2542	Non-reactive	0	37	0
2543	Reactive	37	0	0
2544	Reactive	37	0	0
2545	Non-reactive	0	37	0

Table 3.

Kit Source		Specimen Number 2541	2542	2543	2544	2545	Cutoff Value
Genetic Systems CDC Results	Range	0.049-0.233	0.057-0.184	1.473-3.000	1.513-3.000	0.055-0.259	0.268-0.294
	Mean	0.103	0.088	2.108	2.141	0.117	0.274
		0.179	0.171	2.170	2.221	0.243	0.304
bioMerieux Vironostika CDC Results	Range	0.174-0.391	0.160-0.334	1.844-3.000	1.704-3.155	0.178-0.695	0.409-0.606
	Mean	0.254	0.255	2.578	2.557	0.321	0.477
		0.194	0.194	2.962	3.144	0.170	0.429
bioMerieux Vironostika Uni-Form II *plus* O	Range	0.051-0.292	0.052-0.211	1.737-3.500	1.974-3.500	0.070-0.217	0.145-0.301
	Mean	0.135	0.131	2.660	2.708	0.128	0.193

Use of trade names and commerical sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

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Quarter 2, 2005

PART 2. CONFIRMATORY

Table 4.
Confirmatory Methods

Kit Source	Total Participants
Genetic Systems HIV-1 WB (Bio-Rad)	11
Bio-Rad New LAV Blot I	5
OraSure HIV-1 WB Kit	2
Genelab Diagnostics HIV 2.2 WB	2
Cambridge Biotech HIV-1 WB Kit (Calypte)	3
Total	23

Table 5.
Number of Labs Reporting Western Blot Results

Specimen Number	Expected Results	Reactive	Non-reactive	Indeterminate	Not Tested
2541	Non-reactive	0	8	0	15
2542	Non-reactive	0	8	0	15
2543	Reactive	23	0	0	0
2544	Reactive	23	0	0	0
2545	Non-reactive	0	8	0	15

Table 6.

Specimen 2543

Methods	gp160		gp120		p66		p55		p51		gp41		p31		p24		p18	
	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
CDC (GS HIV-1 Kit, Bio-Rad)	✓		✓		✓		✓		✓		✓		✓		✓		✓	
Genetic Systems HIV-1 Kit (Bio-Rad)	11	0	11	0	11	0	9	2	10	1	11	0	10	1	11	0	9	2
Bio-Rad New LAV Blot I	5	0	5	0	4	1	5	0	5	0	5	0	4	1	5	0	5	0

Quarter 2, 2005

PART 2. Continued

Table 6.

Specimen 2544

Methods	gp160		gp120		p66		p55		p51		gp41		p31		p24		p18	
	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
CDC (GS HIV-1 Kit, Bio-Rad)	✓		✓		✓		✓		✓		✓		✓		✓			✓
Genetic Systems HIV-1 Kit (Bio-Rad)	11	0	11	0	11	0	10	1	11	0	11	0	11	0	11	0	10	1
Bio-Rad New LAV Blot I	5	0	5	0	4	1	5	0	5	0	5	0	4	1	5	0	3	2

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